

SERIAL NO. 09/762,833

TW-5922-A

Amendments to the Specification

The paragraph on page 5, lines 1-2:

C 1

controlling the polydispersity of the polymer being formed by [ ~~ing~~ varying] varying the ratio of the number of molecules of (ii) to the number of molecules of (iii);

The paragraph on page 6, lines 1-6:

C 2

R is selected from the group consisting of optionally substituted [alk ] alkyl; an optionally substituted saturated, unsaturated or aromatic carbocyclic or heterocyclic ring; optionally substituted alkylthio; optionally substituted alkoxy; optionally substituted dialkylamino; an organometallic species; and a polymer chain prepared by any polymerization mechanism; in compounds C and D, R• is a free-radical leaving group that initiates free radical polymerization;

The paragraph starting on page 6, lines 35-37 and ending on page 7, lines 1-5:

C 3

The monomer moieties and value of q in the monomer repeating unit(s) derived from those in (i) are selected so that:

when  $q \geq 1$  and Q [is] results from a single monomer species, then the polymer is a homopolymer;

when  $q \geq 2$  and Q [is-selected] results from the selection from 2 or more different monomer species in irregular sequence then the polymer is a copolymer; and

when  $q \geq 2$  and Q [is-selected] results from the selection from 2 or more different monomer species in which each different monomer or group of monomers appears in a discrete sequence then the polymer is a block copolymer.

C 4

The partial paragraph on page 15, lines 1-2:

Saturated, [unsat—ted,] unsaturated, or aromatic carbocyclic or heterocyclic rings may contain from 3 to 14 atoms.

C 5

The partial paragraph on page 19, lines 1-3:

likely to be higher than predicted by these relationships [ cause] because of the limitations already mentioned. Nonetheless, these relationships serve as a useful guide in selecting reaction conditions.

C 6  
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The partial paragraph on page 28, lines 1-3:

from [—] 1:3 chloroform/ethanol gave the title compound as a red solid (77% yield), m.p. 222-224 °C (dec).  $^1\text{H-nmr}$  ( $\text{CDCl}_3$ ) d (ppm): 4.66 (s, 12H); 7.30-7.60 (m, 18H) and 7.94 (m, 12H).

C 7  
The partial paragraph on page 30, lines 1-2:

g, 24.3 % yield).  $^1\text{H-nmr}$  [ $\text{C}-\text{I}_3$ ] ( $\text{CDCl}_3$ ) d(ppm): 1.25 (t, 3H); 2.90 (s, 3H); 4.07 (s, 2H) and 4.20 (q, 2H).

C 8  
The partial paragraph on page 33, lines 1-4:

(Kieselgel-60, 70-230 mesh, 1:4 ethyl acetate/n-hexane eluent), [ ~~enzy~~] S-benzyl diethoxyphosphinyldithioformate (**20**) was obtained (11 g, 18% yield) as a red oil.  $^1\text{H-nmr}$  ( $\text{CDCl}_3$ ) d (ppm) 1.43 (t, 6H); 4.38 (s, 2H), 4.65 (q, 4H) and 7.30-7.45 (m, 5H).

C 9  
The paragraph on page 49, lines 1-5:

The experimental [ ~~ditions~~ conditions described in Example 19 (same molar concentrations) were used to prepare low polydispersity poly(methyl methacrylate) with *tert*-butyl trithioperbenzoate (**21**). After heating at 60 °C for 16 hours, poly(methyl methacrylate) was obtained (62.8% conversion;  $M_n$  92 000;  $M_w/M_n$  1.34).

C 10  
The title of Table 23 on page 52:

**Table 23: Molecular weight and conversion data for [poly—rene] polystyrene prepared with 2-(ethoxycarbonyl)prop-2-yl dithiobenzoate (**14**) at 60 °C**

C 11  
The title of Table 25 on page 53:

**Table 25: Molecular weight and conversion data for polystyrene [pre—red] prepared with benzyl diethoxyphosphinyldithioformate (**20**) at 100 °C**

C 12  
The partial paragraph on page 61, lines 1-2:

[~~eo—sion~~] conversion). GPC results obtained after methylation of the diblock, gave polymer of  $M_n$  4718 and  $M_w/M_n$  1.18.

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The paragraph on page 63, lines 1-4:

*C 13*  
The star [poly(n-butyl acrylate)] poly(n-butyl acrylate) (0.5 g,  $M_n$  23248,  $M_w/M_n$  2.22) and styrene (2 mL) were transferred into an ampoule degassed, sealed and heated at 110°C for 16 hours. After removal of all the volatiles, the star block copolymer was obtained (1.3 g, 71.4% conversion) with  $M_n$  82 500 and  $M_w/M_n$  2.16.

The partial paragraph on page 66, lines 1-2:

*C 14*  
completion of the feeds the reaction mixture was held at 80°— C for a further 90 minutes. The reaction mixture was sampled periodically for GPC analysis.

The title of Table 39 on page 67:

*C 15*  
Table 39: Molecular weight and conversion data for poly(styrene) [a—] and poly(methyl methacrylate-block-styrene) prepared with benzyl dithioacetate in emulsion